Attachment L

Help on Identification of Fish Species of the Atlantic and Gulf Coasts

HERRINGS - CLUPEIDAE: 8747010000
Peterson: Plate 12; Pages 66 - 72

A major "local name" problem involves fish in the Herring family. Fishermen use the terms "shad", "herrings" and "alewifes" almost interchangeably for many of the species in this family. For unavailable or Type 2 fish, KCA would prefer the family level entry, 8747010000, unless the interviewer has absolute certain knowledge of the exact species. For available or Type 3 fish, interviewers are expected to identify fish to the species level. Many species in this family are difficult to distinguish, extra effort may be necessary for an accurate identification. Identification is **not** impossible! Use your dichotomous key and Peterson's manual. Be diligent and persistent.

In the Gulf, the bait fish referred to as "Alewife" is **not** the Alewife (Alosa pseudoharengus), but **is** the Gulf Menhaden (Brevoortia patronus).

SMELTS - OSMERIDAE: 8755030000
Peterson: Plate 13; Pages 77 -78

While two species of saltwater smelts are listed in the Coding Manual, all of the smelts encountered in New Hampshire and Massachusetts and 99 of 100 smelts encountered in Maine will be the **Rainbow Smelt** (Osmerus mordax, 8855030302) and should be coded as such. This holds for target species, unavailable or Type 2 fish, and as well as for available or Type 3 fish.

According to the literature, the **Capelin Smelt** (Mallotus villosus, 8755030201) can occur south to the Gulf of Maine, but its occurrence is very unlikely. Interviewers in Maine should be very cautious in their identification of Capelin Smelt. (The lower jaw of the Capelin Smelt extends beyond that of the upper jaw. The reverse is true of the Rainbow Smelt.)

TOADFISHES - OPSANUS GENUS: 8783010200
Peterson: Plate 14; Pages 84 - 85

The only toadfish which occurs north of Cape Canaveral, Florida, is the **Oyster Toadfish** (Opsanus tau, 8783010201). The Oyster Toadfish occurs all along the Atlantic Coast; it does not occur in the Gulf. The **Gulf Toadfish** (Opsanus beta, 8783010202) occurs primarily in the Gulf, but has been seen in East Florida as far north as Cape Canaveral. The **Leopard Toadfish** (Opsanus pardus, 8783010203) occurs only in the Gulf and NOT on the Atlantic coast.

In the Gulf, it is important to distinguish Gulf Toadfish and Leopard Toadfish. **Gulf Toadfish** have dark bodies with irregular light blotches or crossbars. They are found inshore in bays, on oyster reefs and around jetties. **Leopard Toadfish** have bodies with a light background covered by darker spots. They are found offshore or near reefs and other rocky areas.

SHARKS - VARIOUS FAMILIES
Peterson: Plates 2-5; Pages 16-34

The sharks, as a group, pose some of the most excruciating confusion as concerns their correct identification. Some, like the Shortfin Mako (Isurus oxyrinchus), and the Thresher sharks (Alopias spp.- 2), are relatively easy due to their characteristic teeth and tails respectively. The Longfin Mako is an extremely rare tropical species and will likely never be encountered. Beware though, the pectoral fins of the "Shortfin" Mako are rather long compared to other sharks, but don't let that fool you. If you are north of Key West, Florida, you are seeing the Shortfin. There are also two Threshers which are about equal in occurrence. The main thing to look for is whether it has **huge** eyes. If it does it is probably the Bigeye Thresher (Alopias superciliosus). The eyes are big- like the size of baseballs!

The sharks which actually give the most trouble for the field biologist are those of Family CARCHARHINIDAE, the "Requiem Sharks". Among the most difficult to distinguish within this group are the Dusky (Carcharhinus obscurus), the Sandbar (Carcharhinus plumbeus) and the Silky (Carcharhinus falciformis). The differences are rather subtle and difficult to explain on paper. The only way to get a real good handle on their identification is to go through the painstaking process of keying each one you encounter. With practice, patience, and experience it may come a bit less difficult, but is never easy. Read the section in Peterson (pages 23-30) and use **all** the information provided to reach accurate ID's. Some of the more obvious characteristics to look for include: Does it or does it not have a "Mid-dorsal Ridge" (page 25), the shape of the snout from below (page 23), the shape of the teeth (page 24), and the position of the fins in relation to each other.

Another caution with this group: **Practically all of the species exhibit black tipped fins as juveniles, and many carry that characteristic into maturity!**

MORAL: Just because it has "black tipped" fins DOES NOT automatically mean it is a *Blacktip Shark*!

By the way, the word "Requiem" comes from the introduction to the Latin: **Mass for the Dead!**

The only other common problem within the sharks is between the Great (Sphyrna mokarran), the Scalloped (S. lewini) and the Smooth (S. zygaena) Hammerheads. They all attain considerable size and are easily confused. Consult Peterson (page 30) for distinguishing characteristics.

Shark populations have been declining precipitously in recent years, and as a result, more and more interest has arisen in their welfare. Because of this added concern it is absolutely vital that we do our part by insuring that we collect accurate data. Be careful, and take any extra time available to come to an appropriate ID.

CODS - GADIDAE: 8791030000
Peterson: Plate 15; Page 93

Fishermen who use the term "cod" for target species or unavailable or Type 2 catch are most often referring to the **Atlantic Cod** (Gadus morhua, 8791030402). While it is possible to confuse Atlantic Cod with three other species in the same family (Atlantic Tomcod, Haddock and Pollock), they are fairly easy to distinguish. If an interviewer has any doubt about a fisherman's report of "cod", he/she should ask some probing questions to narrow down the species. Interviewers should avoid using the Gadidae family code, 8791030000.

Atlantic Cod (Gadus morhua, 8791030402) are larger than Atlantic Tomcod and are more likely to be caught offshore. They have a caudal fin that is slightly forked.

Atlantic Tomcod (Microgadus tomcod, 8791030602) are smaller than Atlantic Cod and are more likely to be caught inshore. The Atlantic Tomcod has a more rounded caudal fin, and the second ray of the Atlantic Tomcod's pelvic fin is elongated.

Haddock (Melanogrammus aeglefinus, 8791031301) have a very prominent dark shoulder spot and a very noticeable black lateral line. Its caudal fin is much more forked than either the Atlantic Cod or Atlantic Tomcod.

Pollock (Pollachias virens, 8791030901), like Haddock, have a deeply forked caudal fin. It can be distinguished from the other three species because it is the only one with a lower jaw that protrudes beyond the upper jaw.

None of these four species occurs south of Cape Hatteras, North Carolina.

Besides the Atlantic Cod, sightings of the other species listed under "cod" in the Coding Manual (Arctic Cod, Greenland Cod, Polar Cod, and Toothed Cod) are not at all likely.

SEABASSES - SERRANIDAE: 8835020000

The family Serranidae includes several rather diverse "groups". They range in size from very small to gigantic and range in habitat from shallow inshore waters to deep continental shelf waters. Because the family is so diverse, interviewers should strive not to use the general family code for either target species or unavailable or Type 2 fish. WHENEVER POSSIBLE, TAKE THE CODING AT LEAST TO THE GENUS LEVEL. Four genera are discussed below:

Seabasses (Proper) - Centropristis genus: 8835020300
Peterson: Plate 24; Page 137

Black Seabass (Centropristis striatus, 8835020301), **Bank Seabass** (Centropristis ocyurus, 8835020304), and **Rock Seabass** (Centropristis philadelphica, 8835020305) comprise this genus. The differences in the three species are rather obvious, and information in Peterson should be sufficient to aid in identification.

Fishermen often use the term "seabass" to report target species and unavailable catch. In most instances they are referring to Black Seabass, and interviewers should use the Black Seabass code. If the fisherman could be referring to some other seabass (proper), the interviewer should take the code to the appropriate species or, at minimum, to the genus level (8835020300).

Groupers - Epinephelus genus: 8835020400
Mycteroperca genus: 8835020500
Peterson: Plate 25; Pages 131 - 136

Most groupers belong to one of the following two genera: Epinephelus (Coney, Grasby, Misty Grouper, Nassau Grouper, Red Grouper, Snowy Grouper, Warsaw Grouper, Yellowedge Grouper, Red Hind, Rock Hind, Speckled Hind, and Jewfish) or Mycteroperca (Black Grouper, Comb Grouper, Gag Grouper, Scamp, Tiger Grouper, Yellowfin Grouper, and Yellowmouth Grouper). If a fisherman should report "grouper" as either his/her target species or unavailable or Type 2 fish, interviewers should strive to obtain enough information to allow for coding to the species level. If the interviewer can narrow it down to one of several species within one genus, the interviewer should enter the appropriate genus code (8835020400 or 8835020500).

If species or genus level determination is impossible for "grouper" as a target species or as unavailable or Type 2 catch, interviewers should use the following "dummy" code: "**Grouper**": 8835025000. This "dummy" code should only be used for target species or unavailable or Type 2 catch. Without seeing the specimen, it is difficult to separate the two genera of "groupers". Use of the "dummy" code, however, will allow for a distinction between "groupers" and other fish in the Serranidae family.

"Black grouper" is an often used local name. The only NMFS-confirmed sightings of the actual **Black Grouper** (Mycteroperca bonaci, 8835020502) have been in South Florida (south of Cape Canaveral in East Florida and south of Tampa in West Florida). Anywhere other than South Florida, the fish locally known as "black grouper" is most likely a different kind of grouper. For target species and unavailable or Type 2 reports of "black grouper", interviewers should use the "grouper" dummy code.

SEABASSES - SERRANIDAE: 8835020000 (CONTINUED)
Temperate Basses - Morone genus: 8835020100
Peterson: Plate 24; Pages 129 - 330

The **Striped Bass** (Morone saxatilis, 8835020102) and the **White Perch** (M.americana, 8835020101) are the most commonly encountered temperate basses. These are both species which spend a portion of their lives in estuarine waters, and Striped Bass, in particular, are fairly easy to distinguish. The Yellow Bass (M. mississippiensis), and the White Bass (M. chrysops) are exclusive to fresh water systems and will rarely, if ever, be encountered. There do exist Hybrid members of this group, but, in that they tend to be salt intolerant, will very rarely be seen (in portions of the Northwestern Gulf of Mexico).

Interviewers should note that the **White Perch** is not a "true" perch, like the **Yellow Perch** (Perca flavescens, 8835200201). Interviewers must use caution when the word "perch" is used by a fisherman for target species or unavailable or Type 2 fish. The fisherman could be referring to either the White Perch or the Yellow Perch, and a distinction must be made. The White Perch is more silvery in color and has no obvious pattern of darker bars. The Yellow Perch is more yellowish in coloration and typically has dark vertical bars and bright red fins.

NOTE: The NMFS coding scheme puts the temperate basses in the Serranidae family, rather than the Percichthyidae family discussed in Peterson.

DOLPHINS - CORYPHAENIDAE: 8835290000
Peterson: Plate 30; Page 65

Two species comprise this family: the **Dolphin** and the **Pompano Dolphin**.

The **Dolphin** (Coryphaena hippurus, 8835290101), also called dorado, is usually caught offshore. The average weight for this species is 1.8 - 3.6 kg (4 - 8 lbs), but adults are known to reach 36.4 kg (80 lbs). It is found most often in the South Atlantic and Gulf, but it does occur north to New England when following the Gulf Stream.

The **Pompano Dolphin** (Coryphaena equisetis, 8835290102) is very similar in appearance and range but is much smaller when mature. Pompano Dolphin rarely reach over 600 mm or 2.3 kg (5 lbs). The Pompano Dolphin is generally caught further offshore than the Dolphin.

Most confusion will arise between females of C. hippurus adult equisetis. The **Dolphin** and the **Pompano Dolphin** can be distinguished by counting dorsal fin elements. The Dolphin has 56 or more dorsal fin elements; and the Pompano Dolphin has 55 or fewer.

Because of "local name" problems, the **Pompano Dolphin** might be confused with a member of the Jack family, the **Florida Pompano** (Trachinotus carolinus, 8835280901). In the southeast, fishermen often refer to Pompano Dolphin by the common name "pompano" as well as shorten the name of Florida Pompano to "pompano". The average size of the Florida Pompano (0.3 - 0.7 kg; 0.7 - 1.5 lbs) is much smaller than the Pompano Dolphin.

PORGIES - SPARIDAE: 8835430000
Peterson: Plate 33; Page 184

Fishermen often use the term **"porgy"** to report target species and unavailable or Type 2 catch. North of Delaware Bay, these fishermen are most often referring to the Scup (Stenotomus chrysops, 8835430101), and interviewers should use the Scup code. NOTE: The Scup is extremely rare south of Cape Hatteras, North Carolina.

Be careful of the local name "pogy". This refers to Atlantic or Gulf Menhaden, which are obviously not members of Family Sparidae.

In the Gulf watch out for the local name "White or Silver Snapper". These are names commonly used to refer to the **Red Porgy** (Pagrus pagrus).

DRUMS - SCIAENIDAE: 8835440000

Seatrouts - Cynoscion genus: 8835440100
Peterson: Plate 35; Page 189

Often fishermen will refer to seatrout species as simply "trout". DO NOT USE THE FRESHWATER TROUT FAMILY SALMONIDAE.

Spotted Seatrout (Cynoscion nebulosus, 8835440102) have upper sides with well defined round black spots and 8 - 10 anal fin rays. They are usually the largest of the seatrouts, with an average weight of 1.8 kg (4 lbs). They range from New York (rare) to Florida and throughout the Gulf.

Silver Seatrout (Cynoscion nothus, 8835440103) have sides without distinct spots and 8 - 9 anal fin rays. Their average weight is 0.2 kg (0.5 lbs). While Peterson reports a maximum verfied length of 300 mm (12 ins), they have been known to reach lengths of up to 480 mm (19 ins). They range from the Chesapeake Bay to Florida and throughout the Gulf.

Sand Seatrout (Cynoscion arenarius, 8835440106) have sides without distinct spots and 10 - 12 anal fin rays. Their average weight is 0.5 kg (1.6 lbs). While Peterson reports a maximum verified length of 380 mm (15 ins), they have been known to reach lengths of up to 610 mm (24 ins). Sand Seatrout occur in the Gulf; they do NOT occur in the Atlantic.. In the Gulf, Sand Seatrout are more often confused with Silver Seatrout. An anal fin ray count can be used to distinguish the species.

Weakfish (Cynoscion regalis, 8835440104) have dorsal surfaces with dark blotches arranged in oblique rows, no round spots on second dorsal and tail, and 11 - 12 anal fin rays. Their average weight is 0.7 kg (1.5 lbs). They primarily range from Massachusetts to Cape Lookout, North Carolina. They only rarely occur south of Cape Lookout, North Carolina to East Florida. (Only about 5 to 10 percent of the seatrouts caught south of Cape Lookout are Weakfish.) They do NOT occur in the Gulf. On the Atlantic, the Weakfish is more often confused with the Silver Seatrout. An anal fin ray count can be used to distinguish the species.

Kingfishes - Menicirrhus genus: 8835440600
Peterson: Plate 35; Page 187

DO NOT CONFUSE MENTICURRHUS SPP. WITH THE NAME FISHERMEN USE FOR KING MACKEREL, I.E., "KINGFISH" IS A LOCAL NAME FISHERMEN USE FOR KING MACKEREL (8850030501). REMEMBER, MENTICURRHUS SPP. DO NOT HAVE FINLETS.

Peterson's lists three species of kingfishes on the Atlantic and Gulf coasts. They are: the **Northern Kingfish**, the **Southern Kingfish**, and the **Gulf Kingfish**.

The **Northern Kingfish** (Menticirrhus saxatilis, 8835440603) has 5 or 6 dark oblique bars along the sides of its body with a V-shaped pattern above the pectoral fin. It also has a long spine on the first dorsal fin. Northern Kingfish range from Cape Cod to East Florida, and only rarely in the Gulf where it is referred to as the "minkfish".

The **Southern Kingfish** (Menticirrhus americanus, 8835440601) has a silver-gray to coppery colored body with irregular dark patches. It does NOT have a long spine on the first dorsal fin. It has 86 - 96 scales along the lateral line. The Southern Kingfish occurs most often in the Gulf, but strays north to New Jersey.

The **Gulf Kingfish** (Menticirrhus littoralis, 8835440602) has a silvery colored body without blothches. It does NOT have a long spine on the first dorsal fin. It has 72 - 74 scales along the lateral line. The Gulf Kingfish occurs most often in the Gulf and rarely strays north of South Carolina.

MACKERELS - SCOMBRIDAE: 8850030000
SNAKE MACKERELS - TRICHIURIDAE: 8850010000
Peterson: Plates 48, 49 and 62; Pages 257 - 263

Mackerels/Tunas and their close relatives, the Snake Mackerels, are distinguished from other fishes by having several separated dorsal and anal finlets; and also by having two dorsal fins: the first composed of spines, the second of soft rays.

The only two Snake Mackerels that could possibly be confused with the Mackerels/Tunas are the **Oilfish** (Ruvettus pretiosus, 8850010401) and the **Escolar** (Lepidocybium flavobrunneum, 8850010301). Unlike the Mackerels/Tunas, these species are uniformly dark in color. They inhabit very deep offshore waters and would be extremely rare in a recreational catch.

The chart below, which flows to four subsequent charts, can be used to further separate fish in the Scombridae family.

Chart 1. GENERAL SEPARATION OF SCOMBRIDAE GENERA

1A. 1. Two dorsal fins separated by length greater than that of snout . . . . GO TO 2A, CHART 2

2. Two dorsal fins nearly joined . . . . . GO TO 1B

1B. 1. Longer, thinner body profile . . . . . GO TO 3A, CHART 3

2. Shorter, rounder body profile . . . . . GO TO 1C

1C. 1. Multiple horizontal striping OR obvious dark spots on belly . . . . . GO TO 4A, CHART 4

2. No obvious dark markings on body . . . . GO TO 5A, CHART 5

Chart 2. "Small Mackerels" - Scomber genus: 8850030300
Auxis genus: 8850030700

(Two dorsal fins separated by length greater than that of snout)

2A. 1. Has 4 to 6 finlets (Scomber genus) . . . GO TO 2B

2. Has 7 to 8 finlets (Auxis genus) . . . . GO TO 2C

2B. 1. 9 - 10 dorsal spines; no blotches below lateral line . . . . **Atlantic Mackerel** (S. scombrus, 8850030302)

2. 11 or more dorsal spines; dark blotches below lateral line . **Chub Mackerel** (S. japonicus, 8850030301)

2C. 1. No dark spots below pectoral fins . . . . **Bullet Mackerel** (A. rochei, 8850030701)

2. Dark spots below pectoral fins . . . . **Frigate Mackerel** (A. thazard, 8850030702)

Chart 3. "Other Mackerels" - Scomberomorus genus: 8850030500
Acanthocybium genus: 8850030600

(Two dorsal fins nearly joined; Longer, thinner body profile)

3A. 1. No gill rakers; 21 or more spines in first dorsal fin . . . . . **Wahoo** (A. solanderi, 8850030601)

2. Has gill rakers; 18 or fewer spines in first dorsal fin (Scomberomorus genus) . . . . . GO TO 3B

3B. 1. Rapid, obvious dip in lateral line between the two dorsal fins . . . . . **King Mackerel** (S. cavalla, 8850030501)

2. Lateral line that slopes evenly downward . . . . . GO TO 3C

3C. 1. Large yellow or brown spots arranged randomly . . . . . **Spanish Mackerel** (S. maculatus, 8850030502)

2. Elongated yellow spots arranged in rows; one continuous yellow line in center of flank . . . . . **Cero Mackerel** (S. regalis, 8850030503)

NOTE: Juvenile King Mackerel have yellow spotting, similar to that of Spanish Mackerel, which fades with age. Therefore, these yellow spots should not be used as the sole identifying characteristic.

Chart 4. "Bonitos" - Euthynnus genus: 8850030100
Sarda genus: 8850030200

(Two dorsal fins nearly joined; Shorter, rounder body profile; Multiple horizontal striping OR obvious dark spots on belly)

4A.

1. Several dark spots below pectoral fins . . **Little Tunny** (E. alletteratus, 8850030102)

2. No dark spots below pectoral fins . . . . . GO TO 4B

4B.

1. Horizontal stripes on upper half of body . . **Atlantic Bonito** (S.sarda, 8850030202)

2. Horizontal stripes on lower half of body . . **Skipjack Tuna** (E. pelamis, 8850030101)

Chart 5. "True Tunas" - Thunnus genus: 8850030400

(Two dorsal fins nearly joined; Shorter, rounder body profile; No obvious dark markings on body)

5A.
1. Black finlets with silver/white edge . . . **Blackfin Tuna** (T. atlanticus, 8850030404)
2. Yellow finlets with black edge . . . . . GO TO 5B

5B.
1. Very long pectoral fins extending beyond base of both dorsal fins . . **Albacore** (T. alalunga, 8850030401)
2. Pectoral fins not extending beyond base of both dorsal fins . . . . . GO TO 5C

5C.
1. Noticeably elongated second dorsal and anal fins . . . . . **Yellowfin Tuna** (T. albacares, 8850030403)
2. Second dorsal and anal fins not noticeably elongated . . . . . GO TO 5D

5D.
1. Pectoral fins not extending beyond base of first dorsal fin . . **Bluefin Tuna** (T. thynnus, 8850030402)
2. Pectoral fins extending beyond base of first dorsal fin (not beyond base of second dorsal) . . . **Bigeye Tuna** (T. obesus, 8850030405)

NOTE: This key for "true tunas" may not hold for the juveniles of the species.

FLOUNDERS

Be aware, there are two separate families of flounders: The "Right-eyed" flounders of Family Pleuronectidae; and the "Left-eyed" flounders, members of Family Bothidae. This is important information to pursue for Type-2 records.

PLEURONECTIDAE: 8857040000 (Color on right side of fish)
Peterson: Plates 57 and 58; Pages 294 - 298

Winter Flounder (Pseudopleuronectes americanus, 8857042001) have color on their right side. Their average weight is 0.5 - 0.9 kg (1 - 2 lbs), with over 1.8 kg (4 lbs) being unusual. They range from Maine to the Chesapeake Bay.

Yellowtail Flounder (Limanda ferruginea, 8857040903) are a VERY RARE recreational species. They are a deepwater fish rarely taken by hook and line. What are often thought to be Yellowtail Flounder are misidentified Winter Flounder.

BOTHIDAE: 8857030000 (Color on the left side of fish)
Peterson: Plates 55 and 56; Pages 288 - 294

Summmer Flounder (Paralichthys dentatus, 8857030301) have color on the left side of their body. They have five small, ocellated, dark brown spots on the dorsal surface. Their average weight is 0.5 - 1.4 kg (1 - 3 lbs), with over 5 kg (12 lbs) being unusual. They usually have 15 or more gill rakers on the lower limb of the first gill arch. While they range from Cape Cod to Northeast Florida, they are most abundant from Cape Cod to Cape Lookout, North Carolina. (Between Cape Lookout and Northeast Florida they only make up about 5 percent of the flounder catch.)

Southern Flounder (Paralichthys lethostigma, 8857030304) also have color on the left side of their body, but they lack conspicuous spots. Their average weight is 0.5 - 0.9 kg (1 - 2 lbs), with 2.7 kg (6 lbs) unusual. They have 8 - 11, usually 9 - 10, gill rakers on the lower limb of the first gill arch. They range from North Carolina to Texas. They are the most abundant flounder species in the South Atlantic, south of Cape Hatteras, North Carolina.

Gulf Flounder (Paralichthys albigutta, 8857030302) are similar in size (0.5 - 0.9 kg (1 - 2 lbs)) and range (North Carolina to Texas) to the Southern Flounder. They have three small, ocellated, dark brown spots on the dorsal surface. While Peterson reports a maximum length of 300 mm (12 ins) for Gulf Flounder, they have been known to reach 710 mm (28 ins). See Peterson for other morphological differences.

TRIGGERFISHES/FILEFISHES - BALISTIDAE: 8860020000
Peterson: Plate 59; Pages 302 - 303

There are two triggerfishes that may cause some confusion: the **Gray Triggerfish** and the **Ocean Triggerfish.**

The **Gray Triggerfish** (Balistes capriscus, 8860020201) has one or more enlarged scales behind the gill opening. It does not have a dark blotch spot at the base of its pectoral fin. While Peterson reports that 300 mm (12 ins) is the largest verified size for the Gray Triggerfish, they have been known to reach 555 mm (22 ins).

The **Ocean Triggerfish** (Canthidermis sufflamen, 8860020502) has a dark blotch at the base of its pectoral fin. The scales behind the gill opening of the Ocean Triggerfish are the same size as those covering the remainder of the body. It can reach 600 mm (24 ins). The **only** area where Ocean Triggerfish are considered common is in the waters surrounding the island of Bermuda.

The dorsal and anal fins of the more mature, i.e., larger, Gray Triggerfish are elongated and appear very similar to those of the Ocean Triggerfish. Therefore, the shapes of these fins should not be solely used as the identifying characteristic.